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TERMINAL (ENTER 1, 2, 3, OR ?):2

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 NEWS  1         Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2         "Ask CAS" for self-help around the clock
 NEWS  3  JAN 17 Pre-1988 INPI data added to MARPAT
 NEWS  4  FEB 21 STN AnaVist, Version 1.1, lets you share your STN AnaVist
                 visualization results
 NEWS  5  FEB 22 The IPC thesaurus added to additional patent databases on STN
 NEWS  6  FEB 22 Updates in EPFULL; IPC 8 enhancements added
 NEWS  7  FEB 27 New STN AnaVist pricing effective March 1, 2006
 NEWS  8  MAR 03 Updates in PATDPA; addition of IPC 8 data without attributes
 NEWS  9  MAR 22 EMBASE is now updated on a daily basis
 NEWS 10  APR 03 New IPC 8 fields and IPC thesaurus added to PATDPAFULL
 NEWS 11  APR 03 Bibliographic data updates resume; new IPC 8 fields and IPC
                 thesaurus added in PCTFULL
 NEWS 12  APR 04 STN AnaVist $500 visualization usage credit offered
 NEWS 13  APR 12 LINSPEC, learning database for INSPEC, reloaded and enhanced
 NEWS 14  APR 12 Improved structure highlighting in FQHIT and QHIT display
                 in MARPAT
 NEWS 15  APR 12 Derwent World Patents Index to be reloaded and enhanced during
                 second quarter; strategies may be affected
 NEWS 16  MAY 10 CA/CAplus enhanced with 1900-1906 U.S. patent records
 NEWS 17  MAY 11 KOREAPAT updates resume
 NEWS 18  MAY 19 Derwent World Patents Index to be reloaded and enhanced
 NEWS 19  MAY 30 IPC 8 Rolled-up Core codes added to CA/CAplus and
                 USPATFULL/USPAT2
 NEWS 20  MAY 30 The F-Term thesaurus is now available in CA/CAplus
 NEWS 21  JUN 02 The first reclassification of IPC codes now complete in
                 INPADOC

 NEWS EXPRESS    FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a,
                 CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
                 AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.
                 V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT
                 http://download.cas.org/express/v8.0-Discover/

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FILE 'HOME' ENTERED AT 07:18:24 ON 07 JUN 2006

=> file caplus
COST IN U.S. DOLLARS                                  SINCE FILE     TOTAL
                                                           ENTRY   SESSION
FULL ESTIMATED COST                                         0.21      0.21

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FILE LAST UPDATED: 6 Jun 2006  (20060606/ED)

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http://www.cas.org/infopolicy.html

=> hydroxycaroxylic
L1             1 HYDROXYCAROXYLIC

=> hydroxycarboxylic
L2          6876 HYDROXYCARBOXYLIC

=> l1 or l2
L3          6876 L1 OR L2

=> glycol
        350035 GLYCOL
         45146 GLYCOLS
L4      365504 GLYCOL
                 (GLYCOL OR GLYCOLS)

=> l2(l)l4
L5           374 L2(L)L4

=> oxygen
        721456 OXYGEN
          6839 OXYGENS
L6      726230 OXYGEN
                 (OXYGEN OR OXYGENS)

=> l6(l)l5
L7             3 L6(L)L5

=> d l7 1-2 ti fbib abs
```

```
L7   ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Method for producing alpha-hydroxycarboxylate ester
AN   2005:371052  CAPLUS
DN   142:413303
TI   Method for producing alpha-hydroxycarboxylate ester
IN   Yoshida, Hiroshi; Tsuneki, Hideaki; Hayashi, Toshio; Baba, Hideyuki;
     Inagaki, Takahiro; Nakagawa, Satoshi; Kakimoto, Yukihiko; Kitada, Ritsuo;
     Umehara, Kohei
PA   Nippon Shokubai Co., Ltd., Japan
SO   U.S. Pat. Appl. Publ., 24 pp.
     CODEN: USXXCO
DT   Patent
LA   English
FAN.CNT 5
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
PI   US 2005090686        A1    20050428    US 2003-680919         20031008
                                            JP 2002-296621      A  20021009
                                            JP 2002-296623      A  20021009
                                            JP 2002-350987      A  20021203
                                            JP 2002-350994      A  20021203
                                            JP 2002-350997      A  20021203
                                            JP 2002-158809      A  20030604
     JP 2004131408        A2    20040430    JP 2002-296621         20021009
     JP 2004131409        A2    20040430    JP 2002-296623         20021009
     JP 2004182643        A2    20040702    JP 2002-350987         20021203
     JP 3763076           B2    20060405
     JP 2004182644        A2    20040702    JP 2002-350994         20021203
     JP 2004182645        A2    20040702    JP 2002-350997         20021203
PATENT FAMILY INFORMATION:
FAN  2004:351615
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
PI   JP 2004131408        A2    20040430    JP 2002-296621         20021009
     US 2005090686        A1    20050428    US 2003-680919         20031008
                                            JP 2002-296621      A  20021009
                                            JP 2002-296623      A  20021009
                                            JP 2002-350987      A  20021203
                                            JP 2002-350994      A  20021203
                                            JP 2002-350997      A  20021203
                                            JP 2002-158809      A  20030604
FAN  2004:351616
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
PI   JP 2004131409        A2    20040430    JP 2002-296623         20021009
     US 2005090686        A1    20050428    US 2003-680919         20031008
                                            JP 2002-296621      A  20021009
                                            JP 2002-296623      A  20021009
                                            JP 2002-350987      A  20021203
                                            JP 2002-350994      A  20021203
                                            JP 2002-350997      A  20021203
                                            JP 2002-158809      A  20030604
FAN  2004:490810
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
PI   WO 2004050600        A1    20040617    WO 2003-JP12934        20031009
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
             GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS,
             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG,
             PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
             TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                             JP 2002-350987      A  20021203
                                             JP 2002-350997      A  20021203
         JP 2004182643        A2    20040702   JP 2002-350987         20021203
         JP 3763076           B2    20060405
         JP 2004182645        A2    20040702   JP 2002-350997         20021203
         AU 2003271135        A1    20040623   AU 2003-271135         20031009
                                             JP 2002-350987      A  20021203
                                             JP 2002-350997      A  20021203
                                             WO 2003-JP12934     W  20031009
         EP 1571139           A1    20050907   EP 2003-751394         20031009
             R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
                 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
                                             JP 2002-350987      A  20021203
                                             JP 2002-350997      A  20021203
                                             WO 2003-JP12934     W  20031009
         CN 1720218           A     20060111   CN 2003-80105106       20031009
                                             JP 2002-350987      A  20021203
                                             JP 2002-350997      A  20021203
FAN      2004:529719
         PATENT NO.          KIND   DATE       APPLICATION NO.        DATE
         ---------------     ----   --------   --------------------   --------
PI       JP 2004182644        A2    20040702   JP 2002-350994         20021203
         US 2005090686        A1    20050428   US 2003-680919         20031008
                                             JP 2002-296621      A  20021009
                                             JP 2002-296623      A  20021009
                                             JP 2002-350987      A  20021203
                                             JP 2002-350994      A  20021203
                                             JP 2002-350997      A  20021203
                                             JP 2002-158809      A  20030604
OS       CASREACT 142:413303
AB       The present invention provides a process for more efficiently producing an
         α- hydroxycarboxylic acid ester (e.g., glycolic acid Me
         ester) wherein side reactions due to the α- hydroxycarboxylic
         acid ester are inhibited or prevented in comparison with prior art production
         processes.  The process comprises steps of: (1) reacting, in the presence
         of oxygen, (i) a 1,2-diol (e.g., ethylene glycol) with
         a 1,2-diol or (ii) a 1,2-diol with an alc. (MeOH) to obtain a reaction
         product containing an α- hydroxycarboxylic acid ester, (2)
         separating the α- hydroxycarboxylic acid ester from the reaction
         product obtained in (1) by distillation under reduced pressure, and (3) feeding
         step 1 with a mixture obtained by partially or entirely removing water from
         the reaction product, wherein the mixture contains an unreacted 1,2-diol
         and/or alc.

L7       ANSWER 2 OF 3  CAPLUS  COPYRIGHT 2006 ACS on STN
TI       Manufacture of melt-anisotropic polyesters
AN       1993:672006  CAPLUS
DN       119:272006
TI       Manufacture of melt-anisotropic polyesters
IN       Kashiwamura, Tsugifumi; Ishino, Shuhei; Matsumoto, Mitsuo
PA       Kuraray Co, Japan
SO       Jpn. Kokai Tokkyo Koho, 12 pp.
         CODEN: JKXXAF
DT       Patent
LA       Japanese
FAN.CNT 1
         PATENT NO.          KIND   DATE       APPLICATION NO.        DATE
         ---------------     ----   --------   --------------------   --------
PI       JP 05186578          A2    19930727   JP 1992-21907          19920109
                                             JP 1992-21907          19920109
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AB   Title polymers, useful for packaging films with good oxygen
     barrier properties, are manufactured by heating poly(ethylene
     naphthalate)-based polyesters, aromatic hydroxycarboxylic acids
     containing 6-hydroxy-2-naphthoic acid, and lower fatty acid anhydrides (1.02
     to 1.50 times that of the aromatic hydroxycarboxylic acids in
     equivalent) at 100-150° in a solvent until ≥95 mol% conversion
     of the aromatic hydroxycarboxylic acids, and then heating the
     reaction mixture at ≥150°.  Thus, a mixture of
     6-hydroxy-2-naphthoic acid 1316, p-hydroxybenzoic acid 138, Ac2O 918,
     poly(ethylene naphthalate) (intrinsic viscosity 0.65 dL/g) 484, and HOAc
     960 g was refluxed at .apprx.130° under N for .apprx.2 h, heated at
     230° for .apprx.2 h, heated to 270° in 2 h, and then heated
     at 290° with gradual pressure reduction to ≤1 mmHg to give a
     polyester, which contained 2,6-naphthalenedicarboxylate-derived unit 16.9,
     ethylene glycol-derived unit 16.6, hydroxynaphthoate-derived
     unit 58.4, and hydroxybenzoate-derived unit 8.2 mol% and showed melt
     anisotropy from 160° to 350°.  The polyester was pressed at
     290° and then stretched 3-fold each in longitudinal and transverse
     direction at 140° to give a film with thickness .apprx.10 µm and
     O permeability 0.5 mL.20 µm/m2.day.atm vs. 70.0 for a poly(ethylene
     naphthalate) film.


=> d l7 3 ti fbib abs

L7   ANSWER 3 OF 3  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Studies on synthetic ionophores.  VIII.  Transport of alkaline earth metal
     ions by polyether carboxylic acids through liquid membrane
AN   1989:465048  CAPLUS
DN   111:65048
TI   Studies on synthetic ionophores.  VIII.  Transport of alkaline earth metal
     ions by polyether carboxylic acids through liquid membrane
AU   Yamaguchi, Kazuo; Kuboniwa, Hitoshi; Murakami, Nobuya; Hirao, Akira;
     Nakahama, Seiichi; Yamazaki, Noboru
CS   Dep. Polym. Chem., Tokyo Inst. Technol., Tokyo, 152, Japan
SO   Bulletin of the Chemical Society of Japan (1989), 62(4), 1097-101
     CODEN: BCSJA8; ISSN: 0009-2673
DT   Journal
LA   English
OS   CASREACT 111:65048
AB   Seven ω- hydroxycarboxylic acids bearing 2-5 ether
     oxygens with or without aromatic rings and 5 ω-alkoxycarboxylic
     acids bearing 2-6 ether oxygens with aromatic rings were employed
     as carriers for the active transport of alkaline earth metal ions as well as
     alkali metal ions through 1,2-dichloroethane or 1-hexanol as an organic liquid
     membrane.  The relatively hydrophobic ω-hydroxy- and
     ω-alkoxycarboxylic acids (partition coefficient log P >7) exhibited a
     high M2+ transport ability and selectivity over M+ through
     1,2-dichloroethane, regardless of the number of ether O.  However, a marked
     selectivity among alkaline earth metal ions (Mg2+, Ca2+, Ba2+) was not observed
     The less hydrophobic carboxylic acids (log P <6) did not transport Ba2+
     through 1,2-dichloroethane.  The Ba2+ transportability of the hydrophobic
     acids through 1-hexanol was lower than that through 1,2-dichloroethane.
     Linoleic acid in the presence of oligo- and polyethylene glycols
     showed efficient Ba2+ transport through 1,2-dichloroethane, although the
     long-chain fatty acid was not able to transport Ba2+ by itself.


=> +methyl glycolate
'+METHYL' NOT VALID HERE

=> methyl glycolate
        967714 METHYL
```

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           660 METHYLS
        968116 METHYL
                 (METHYL OR METHYLS)
        911756 ME
         10350 MES
        918159 ME
                 (ME OR MES)
       1556930 METHYL
                 (METHYL OR ME)
          8367 GLYCOLATE
           540 GLYCOLATES
          8600 GLYCOLATE
                 (GLYCOLATE OR GLYCOLATES)
L8         423 METHYL GLYCOLATE
                 (METHYL(W)GLYCOLATE)

=> ethylene glycol
        523574 ETHYLENE
          3354 ETHYLENES
        525048 ETHYLENE
                 (ETHYLENE OR ETHYLENES)
        350035 GLYCOL
         45146 GLYCOLS
        365504 GLYCOL
                 (GLYCOL OR GLYCOLS)
L9      127844 ETHYLENE GLYCOL
                 (ETHYLENE(W)GLYCOL)

=> 18(1)19
L10         25 L8(L)L9

=> d his

     (FILE 'HOME' ENTERED AT 07:18:24 ON 07 JUN 2006)

     FILE 'CAPLUS' ENTERED AT 07:19:13 ON 07 JUN 2006
L1              1 HYDROXYCAROXYLIC
L2           6876 HYDROXYCARBOXYLIC
L3           6876 L1 OR L2
L4         365504 GLYCOL
L5            374 L2(L)L4
L6         726230 OXYGEN
L7              3 L6(L)L5
L8            423 METHYL GLYCOLATE
L9         127844 ETHYLENE GLYCOL
L10            25 L8(L)L9

=> l6(l)l10
L11            2 L6(L)L10

=> d l11 1-2 ti fbib abs

L11  ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Process for purification of glycolic acid and derivatives thereof
AN   2004:117795  CAPLUS
DN   140:128821
TI   Process for purification of glycolic acid and derivatives thereof
IN   Hayashi, Toshio
PA   Nippon Shokubai Co., Ltd., Japan
SO   Jpn. Kokai Tokkyo Koho, 18 pp.
     CODEN: JKXXAF
DT   Patent
LA   Japanese
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FAN.CNT 1
     PATENT NO.          KIND    DATE          APPLICATION NO.         DATE
     ---------------     ----    --------      --------------------    --------
PI   JP 2004043387        A2     20040212      JP 2002-204789          20020712
                                               JP 2002-204789          20020712
AB   The title process comprises adding metal salts or ammonium salts to a
     mixture of oxalic acid ester and/or oxalic acid and glycolic acid and/or
     glycolic acid ester and separating the oxalic acid metal salts or oxalic acid
     ammonium salt.  The above-mentioned mixture is obtained by oxidation of
     ethylene glycol by oxygen in presence of an
     alc. (e.g., methanol) and a catalyst.  Me glycolate
     (purity 98%) was obtained by the title method.

L11  ANSWER 2 OF 2  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   The isomeric [C2H6O2]·+ hydrogen-bridged radical cations
     [CH2-O(H)···H···O:CH2]·+,
     [CH3-O···H···O:CH2]·+,
     and [CH3-O(H)···H···O:CH].cntdot
     .+:  theory and experiment
AN   1987:635688  CAPLUS
DN   107:235688
TI   The isomeric [C2H6O2]·+ hydrogen-bridged radical cations
     [CH2-O(H)···H···O:CH2]·+,
     [CH3-O···H···O:CH2]·+,
     and [CH3-O(H)···H···O:CH].cntdot
     .+:  theory and experiment
AU   Burgers, Peter C.; Holmes, John L.; Hop, Cornelis E. C. A.; Postma, Ron;
     Ruttink, Paul J. A.; Terlouw, Johan K.
CS   Anal. Chem. Lab., Utrecht Univ., Utrecht, 3522 AD, Neth.
SO   Journal of the American Chemical Society (1987), 109(24), 7315-21
     CODEN: JACSAT; ISSN: 0002-7863
DT   Journal
LA   English
AB   From a combination of mass spectrometry based expts. and high-level MO
     theory calcns., three new, thermodynamically stable isomers of ionized
     ethylene glycol, [CH2(OH)CH2OH]•+ (I), have been
     identified.  These are the H-bridged radical cations
     [CH2O(H)···H···O:CH2]•+
     (II), [CH3O···H···O:CH2]•+
     (III), and [CH3O(H)···H···O:CH].
     bul.+ (IV); a fifth isomer, also H-bridged, [CH2:CHO··.cntdo
     t.H···OH2]•+ has been previously reported.  III
     was exptl. identified (via a double collision experiment) as the stable ion
     formed by loss of CO from ionized Me glycolate,
     whereas II was proposed to be a long-lived, rearranged form of ionized
     glycol, I.  The common unimol. dissocns. of II and III into [CH3OH2]+ and
     •HCO were associated with energy barriers attributed to their
     rearrangement into (energy-rich) ions of structure IV, from which the
     dissociation proceeds by direct bond cleavage.  This study underlines the
     important role that -O···H···O-
     hydrogen-bridged radical cations can play in the gas-phase ion chemical of
     oxygen-containing compds.


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COST IN U.S. DOLLARS                                  SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                        41.59      41.80

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)            SINCE FILE      TOTAL
                                                           ENTRY    SESSION
CA SUBSCRIBER PRICE                                        -3.75      -3.75
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 SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 07:26:13 ON 07 JUN 2006

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PASSWORD:
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FILE 'CAPLUS' ENTERED AT 08:04:12 ON 07 JUN 2006
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COST IN U.S. DOLLARS                             SINCE FILE      TOTAL
                                                      ENTRY    SESSION
FULL ESTIMATED COST                                   41.59      41.80

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)       SINCE FILE      TOTAL
                                                      ENTRY    SESSION
CA SUBSCRIBER PRICE                                   -3.75      -3.75

=> d his

     (FILE 'HOME' ENTERED AT 07:18:24 ON 07 JUN 2006)

     FILE 'CAPLUS' ENTERED AT 07:19:13 ON 07 JUN 2006
L1              1 HYDROXYCAROXYLIC
L2           6876 HYDROXYCARBOXYLIC
L3           6876 L1 OR L2
L4         365504 GLYCOL
L5            374 L2(L)L4
L6         726230 OXYGEN
L7              3 L6(L)L5
L8            423 METHYL GLYCOLATE
L9         127844 ETHYLENE GLYCOL
L10            25 L8(L)L9
L11             2 L6(L)L10

=> plyglycol?
L12           0 PLYGLYCOL?

=> polyglycol?
L13        9698 POLYGLYCOL?

=> glycol terminated
        350035 GLYCOL
         45146 GLYCOLS
        365504 GLYCOL
                 (GLYCOL OR GLYCOLS)
         92079 TERMINATED
L14         211 GLYCOL TERMINATED
                 (GLYCOL(W)TERMINATED)

=>

=>

=> l13(l)l14
```

```
L15          0 L13(L)L14

=> glycolic
         15455 GLYCOLIC
             1 GLYCOLICS
L16      15455 GLYCOLIC
                 (GLYCOLIC OR GLYCOLICS)

=> 19(1)116
L17        477 L9(L)L16

=> copolymer
        591222 COPOLYMER
        188677 COPOLYMERS
L18     640481 COPOLYMER
                 (COPOLYMER OR COPOLYMERS)

=> 117(1)118
L19         97 L17(L)L18

=> d 119 87-97 ti

L19  ANSWER 87 OF 97  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Transparent gas-barrier copolyesters for packaging materials

L19  ANSWER 88 OF 97  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   High-molecular-weight aliphatic polyesters and their manufacture

L19  ANSWER 89 OF 97  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Condensation polyesters and drawn polyesters

L19  ANSWER 90 OF 97  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Isomorphic copolycondensation of oligo(ethylene oxalate) with
     oligo(glycolic acid)

L19  ANSWER 91 OF 97  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Hot melt adhesives having improved thermal stability

L19  ANSWER 92 OF 97  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Flexible glycolic acid terpolymers

L19  ANSWER 93 OF 97  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Electrically conductive polyester resin coating compositions

L19  ANSWER 94 OF 97  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   High-molecular-weight polyester resin

L19  ANSWER 95 OF 97  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Polymerizable mixtures containing an unsaturated polyester resin

L19  ANSWER 96 OF 97  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   α,β-Ethylenic N-alkylolamides

L19  ANSWER 97 OF 97  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Glycolic acid polymers


=> d 119 88, 89,94,97 ti fbib abs

L19  ANSWER 88 OF 97  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   High-molecular-weight aliphatic polyesters and their manufacture
AN   1990:8073  CAPLUS
DN   112:8073
```

TI High-molecular-weight aliphatic polyesters and their manufacture
IN Tatsumi, Hiroaki; Takahashi, Hiroshi
PA Toray Industries, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | JP 01156319 | A2 | 19890619 | JP 1987-316413 | 19871215 |
| | | | | JP 1987-316413 | 19871215 |

AB The title polyesters, useful as surgical goods and controlled-release agents (no data), are manufactured economically by polycondensation of **glycolic** acid (I) and/or lactic acid (II) in the presence of glycols to give **copolymers** having reduced viscosity (ηsp/c; at 0.5 g/dL in 10:7 PhOH/tetrachlorophenol) ≥0.35 dL/g. Thus, 108.6 g 70% aqueous I was concentrated by heating in vacuo, mixed with Ph3PO3 0.155, Sb2O3 0.146, and **ethylene glycol** (III) 0.621 g, heated at 200° and 5 mm Hg until it solidified, then cooled, pulverized, and further polymerized in the solid state at 200° and 5 mm Hg for 40 h to give a **copolymer** containing 0.004 mol III units per mol I units (determined by NMR) and having ηsp/c 0.63 dL/g, vs. 0.29 dL/g for a polyester prepared similarly without the III.

L19 ANSWER 89 OF 97 CAPLUS COPYRIGHT 2006 ACS on STN
TI Condensation polyesters and drawn polyesters
AN 1985:185974 CAPLUS
DN 102:185974
TI Condensation polyesters and drawn polyesters
PA Mitsui Petrochemical Industries, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | JP 59215319 | A2 | 19841205 | JP 1983-89991 | 19830524 |
| | JP 06010254 | B4 | 19940209 | | |
| | | | | JP 1983-89991 | 19830524 |

AB Polyesters having good melt moldability, mech. strength, transparency, and gas barrier properties are prepared from aromatic dicarboxylic acids containing mainly terephthalic acid 30-49, diols containing mainly **ethylene glycol** 30-49, <C5 aliphatic α-hydroxycarboxylic acids 2-40, and C3-15 compds. containing >3 carboxyl or hydroxyl groups 0-5 mol%. Thus, **ethylene glycol-glycolic** acid-terephthalic acid **copolymer** [96218-05-2] was prepared and a pressed sheet had permeability (mL.mm/m2.day.atm) for O 1.9 and CO2 17, compared with 4.5 and 25, resp.; for a PET sheet.

L19 ANSWER 94 OF 97 CAPLUS COPYRIGHT 2006 ACS on STN
TI High-molecular-weight polyester resin
AN 1975:580217 CAPLUS
DN 83:180217
TI High-molecular-weight polyester resin
IN Casey, Donald J.; Gleckler, George C.
PA American Cyanamid Co., USA
SO Ger. Offen., 22 pp.
CODEN: GWXXBX
DT Patent
LA German

```
FAN.CNT 2
     PATENT NO.          KIND   DATE        APPLICATION NO.       DATE
     ---------------     ----   --------    --------------------  --------
PI   DE 2454818           A1    19750522    DE 1974-2454818         19741119
                                            US 1973-418138        A 19731121
     ZA 7406283           A     19751029    ZA 1974-6283            19741002
                                            US 1973-418138        A 19731121
     SE 7414603           A     19750522    SE 1974-14603           19741120
     SE 407420            C     19790705
     SE 407420            B     19790326
                                            US 1973-418138        A 19731121
     FR 2251584           A1    19750613    FR 1974-38172           19741120
     FR 2251584           B1    19790223
                                            US 1973-418138        A 19731121
     DK 7406024           A     19750721    DK 1974-6024            19741120
                                            US 1973-418138        A 19731121
     BR 7409734           A     19760525    BR 1974-9734            19741120
                                            US 1973-418138        A 19731121
     IN 139881            A     19760814    IN 1974-CA2581          19741120
                                            US 1973-418138        A 19731121
     BE 822468            A1    19750521    BE 1974-150742          19741121
                                            US 1973-418138        A 19731121
     NL 7415187           A     19750523    NL 1974-15187           19741121
                                            US 1973-418138        A 19731121
     JP 50084692          A2    19750708    JP 1974-133231          19741121
                                            US 1973-418138        A 19731121
     DD 119132            C     19760412    DD 1974-182501          19741121
                                            US 1973-418138        A 19731121
     AU 7475597           A1    19760527    AU 1974-75597           19741121
     AU 497110            B2    19781130
                                            US 1973-418138        A 19731121
     ES 432150            A1    19770216    ES 1974-432150          19741121
                                            US 1973-418138        A 19731121
     GB 1465376           A     19770223    GB 1974-50604           19741121
                                            US 1973-418138        A 19731121
     HU 170101            P     19770428    HU 1974-AE433           19741121
                                            US 1973-418138        A 19731121
     CA 1049695           A1    19790227    CA 1974-214298          19741121
                                            US 1973-418138        A 19731121
PATENT FAMILY INFORMATION:
FAN  1977:195212
     PATENT NO.          KIND   DATE        APPLICATION NO.       DATE
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PI   US 3997512           A     19761214    US 1976-648988          19760114
                                            US 1973-418138       A1 19731121
     ZA 7406283           A     19751029    ZA 1974-6283            19741002
                                            US 1973-418138        A 19731121
     SE 7414603           A     19750522    SE 1974-14603           19741120
     SE 407420            C     19790705
     SE 407420            B     19790326
                                            US 1973-418138        A 19731121
     FR 2251584           A1    19750613    FR 1974-38172           19741120
     FR 2251584           B1    19790223
                                            US 1973-418138        A 19731121
     DK 7406024           A     19750721    DK 1974-6024            19741120
                                            US 1973-418138        A 19731121
     BR 7409734           A     19760525    BR 1974-9734            19741120
                                            US 1973-418138        A 19731121
     IN 139881            A     19760814    IN 1974-CA2581          19741120
                                            US 1973-418138        A 19731121
     BE 822468            A1    19750521    BE 1974-150742          19741121
                                            US 1973-418138        A 19731121
     NL 7415187           A     19750523    NL 1974-15187           19741121
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                                            US 1973-418138      A  19731121
     JP 50084692          A2    19750708    JP 1974-133231         19741121
                                            US 1973-418138      A  19731121
     DD 119132            C     19760412    DD 1974-182501         19741121
                                            US 1973-418138      A  19731121
     AU 7475597           A1    19760527    AU 1974-75597          19741121
     AU 497110            B2    19781130
                                            US 1973-418138      A  19731121
     ES 432150            A1    19770216    ES 1974-432150         19741121
                                            US 1973-418138      A  19731121
     GB 1465376           A     19770223    GB 1974-50604          19741121
                                            US 1973-418138      A  19731121
     HU 170101            P     19770428    HU 1974-AE433          19741121
                                            US 1973-418138      A  19731121
     CA 1049695           A1    19790227    CA 1974-214298         19741121
                                            US 1973-418138      A  19731121
AB   Polyesters were prepared from diglycolic acid (I), a C2-6 alkanediol, and,
     in some cases, fumaric or maleic acid in the presence of Sb2O3
     [1309-64-4]. The polyesters were biodegradable and hydrolyzable and were
     useful for the controlled release of pharmaceuticals in living tissue, as
     fibers for closing wounds, as lubricants for surgical threads, etc.  Thus,
     I 26.8, Sb2O3 0.04, and ethylene glycol 24.8 parts
     were heated 2.75 hr at 175°, 16.5 hr at 175°/1.5 mm, and 8.5
     hr at 175°/0.4 mm to prepare copolymer [56551-69-0] which
     was used as a lubricant on a poly(glycolic acid) [26124-68-5]
     surgical yarn.

L19  ANSWER 97 OF 97  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Glycolic acid polymers
AN   1962:411922  CAPLUS
DN   57:11922
OREF 57:2487a-c
TI   Glycolic acid polymers
IN   Bowman, Norman J.; Proell, Wayne A.
PA   Standard Oil Co.
SO   3 pp.
DT   Patent
LA   Unavailable
     PATENT NO.          KIND   DATE           APPLICATION NO.         DATE
     ---------------     ----   --------    --------------------   --------
PI   US 2999033                 19610905    US 1957-687851         19570930
AB   Polymeric plasticizers useful in the preparation of solid propellants are
     prepared by heating 70% aqueous glycolic acid (I) with
     ethylene glycol (II) at 150°, first at atmospheric
     pressure to remove the H2O and then at 20 mm.; when the mole ratio of I:II
     was 0.03-0.20, the products ranged from a solid, m. .apprx.100°, to
     a viscous liquid. The products are combined with such polymers as
     asphalt, cellulose acetate, cellulose acetate butyrate, poly(vinyl
     acetate), and styrene-acrylonitrile copolymers, and such adjunct
     plasticizers as tri-Et citrate, bis(2,4-dinitrophenyl) ether (III) and
     bis(dinitrophenyl) triglycol ether to form rubbery binders for the NH4NO3
     oxidizer.  Thus, a typical formulation is NH4NO3 73, combustion catalyst
     2, III 8.7, cellulose acetate 7.5, and polymeric plasticizer 8.8 parts
     prepared from a mole ratio of I:II of 0.10.  Thioglycolic acid may be used
     in place of I, and BuOH and nitromethyl propanediol in place of II.


=> file reg
COST IN U.S. DOLLARS                             SINCE FILE      TOTAL
                                                      ENTRY    SESSION
FULL ESTIMATED COST                                   87.99      88.20

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)       SINCE FILE      TOTAL
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                                                   ENTRY     SESSION
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DICTIONARY FILE UPDATES:   6 JUN 2006  HIGHEST RN 887000-62-6

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  conducting SmartSELECT searches.

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*                                                                   *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,   *
* effective March 20, 2005.  A new display format, IDERL, is now    *
* available and contains the CA role and document type information. *
*                                                                   *
*********************************************************************

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for details.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> e diglycolic acid/cn
E1             1      DIGLYCOLANILIDE, A-METHYL-/CN
E2             1      DIGLYCOLATE DEHYDROGENASE/CN
E3             1 --> DIGLYCOLIC ACID/CN
E4             1      DIGLYCOLIC ACID 2-METHYLIMIDAZOLE SALT/CN
E5             1      DIGLYCOLIC ACID ANHYDRIDE/CN
E6             1      DIGLYCOLIC ACID BIS(2,4,6-TRIIODO-3-CARBOXANILIDE)/CN
E7             1      DIGLYCOLIC ACID BIS(ISOPROPYLIDENEHYDRAZIDE)/CN
E8             1      DIGLYCOLIC ACID CHLORIDE/CN
E9             1      DIGLYCOLIC ACID DEHYDROGENASE/CN
E10            1      DIGLYCOLIC ACID DEHYDROGENASE (PSEUDONOCARDIA STRAIN K1 CLON
                      E PDGADH GENE DGADH)/CN
E11            1      DIGLYCOLIC ACID DIANILIDE/CN
E12            1      DIGLYCOLIC ACID DICHLORIDE/CN

=> e3
L20            1 "DIGLYCOLIC ACID"/CN

=> d l20

L20  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   110-99-6  REGISTRY
ED   Entered STN:  16 Nov 1984
```

```
CN   Acetic acid, 2,2'-oxybis- (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Acetic acid, oxydi- (8CI)
CN   Diglycolic acid (6CI)
OTHER NAMES:
CN   2,2'-Oxydiacetic acid
CN   3-Oxapentane-1,5-dioic acid
CN   3-Oxapentanedioic acid
CN   Bis(carboxymethyl) ether
CN   NSC 8651
CN   Oxodiacetic acid
CN   Oxybisacetic acid
CN   Oxydiacetic acid
CN   Oxydiethanolic acid
FS   3D CONCORD
DR   77409-76-8
MF   C4 H6 O5
CI   COM
LC   STN Files:   AGRICOLA, AQUIRE, BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS,
       CASREACT, CHEMCATS, CHEMLIST, CSCHEM, DETHERM*, IFICDB, IFIPAT, IFIUDB,
       MSDS-OHS, PROMT, RTECS*, SPECINFO, TOXCENTER, TULSA, USPAT2, USPATFULL,
       VTB
         (*File contains numerically searchable property data)
     Other Sources:   EINECS**, NDSL**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)


HO2C—CH2—O—CH2—CO2H


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

             691 REFERENCES IN FILE CA (1907 TO DATE)
             128 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             692 REFERENCES IN FILE CAPLUS (1907 TO DATE)
              27 REFERENCES IN FILE CAOLD (PRIOR TO 1967)


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COST IN U.S. DOLLARS                              SINCE FILE     TOTAL
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FULL ESTIMATED COST                                     7.54     95.74

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)        SINCE FILE     TOTAL
                                                       ENTRY   SESSION
CA SUBSCRIBER PRICE                                     0.00     -6.75

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PASSWORD:
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FULL ESTIMATED COST                                        7.54      95.74

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CA SUBSCRIBER PRICE                                        0.00      -6.75

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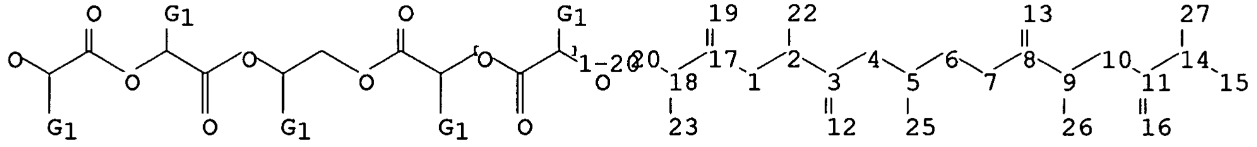

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26  27
chain bonds :
1-2  1-17  2-3  2-22  3-4  3-12  4-5  5-6  5-25  6-7  7-8  8-9  8-13  9-10  9-26
10-11  11-14  11-16  14-15  14-27  17-18  17-19  18-20  18-23
exact/norm bonds :
1-2  1-17  2-22  3-4  3-12  4-5  5-25  6-7  7-8  8-13  9-10  9-26  10-11  11-16
14-15  14-27  17-19  18-20  18-23
exact bonds :
2-3  5-6  8-9  11-14  17-18


G1:H,Ak

Hydrogen count :
2:>= minimum 1  5:>= minimum 1  6:>= minimum 2  9:>= minimum 1  14:>= minimum 1
18:>= minimum 1
Match level :
1:CLASS  2:CLASS  3:CLASS  4:CLASS  5:CLASS  6:CLASS  7:CLASS  8:CLASS  9:CLASS
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L21     STRUCTURE UPLOADED

=> d l21
L21 HAS NO ANSWERS
L21             STR
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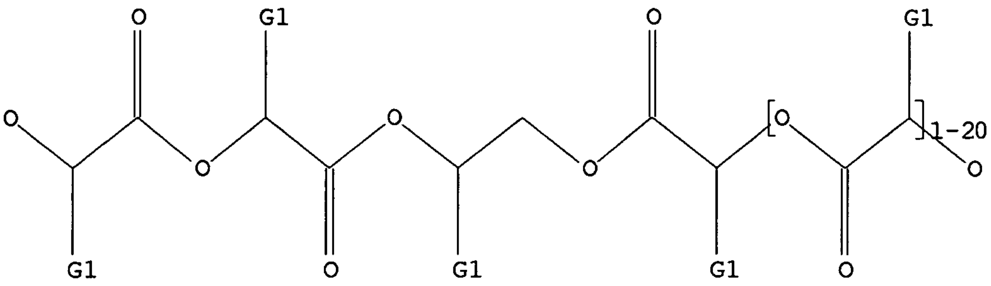

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G1 H,Ak


Structure attributes must be viewed using STN Express query preparation.


=> search l21 sss sam
STRUCTURE TOO LARGE - SEARCH ENDED
A structure in your query is too large.  You may delete
attributes or atoms to reduce the size of the structure
and try again.

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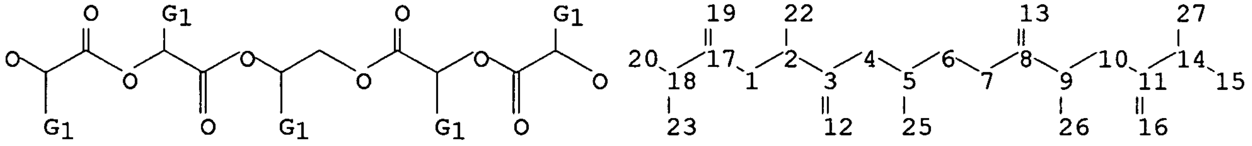

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chain nodes :
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26  27
chain bonds :
1-2  1-17  2-3  2-22  3-4  3-12  4-5  5-6  5-25  6-7  7-8  8-9  8-13  9-10  9-26
10-11  11-14  11-16  14-15  14-27  17-18  17-19  18-20  18-23
exact/norm bonds :
1-2  1-17  2-22  3-4  3-12  4-5  5-25  6-7  7-8  8-13  9-10  9-26  10-11  11-16
14-15  14-27  17-19  18-20  18-23
exact bonds :
2-3  5-6  8-9  11-14  17-18


G1:H,Ak

Hydrogen count :
2:>= minimum 1  5:>= minimum 1  6:>= minimum 2  9:>= minimum 1  14:>= minimum 1
18:>= minimum 1
Match level :
1:CLASS  2:CLASS  3:CLASS  4:CLASS  5:CLASS  6:CLASS  7:CLASS  8:CLASS  9:CLASS
10:CLASS  11:CLASS  12:CLASS  13:CLASS  14:CLASS  15:CLASS  16:CLASS  17:CLASS
18:CLASS  19:CLASS  20:CLASS  22:CLASS  23:CLASS  25:CLASS  26:CLASS  27:CLASS
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L22      STRUCTURE UPLOADED

=> d l22
L22 HAS NO ANSWERS
L22                STR
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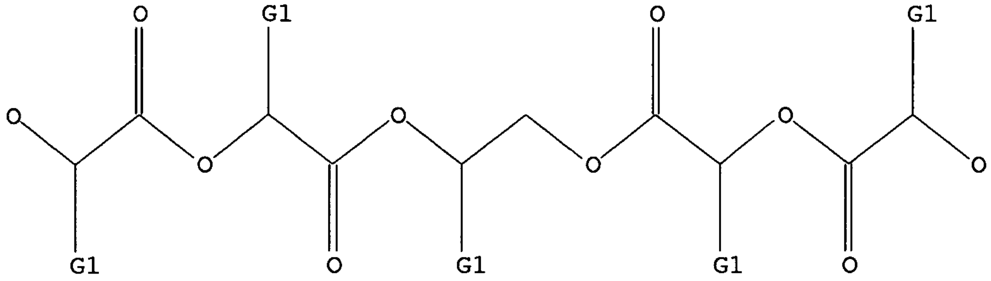

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G1 H,Ak


Structure attributes must be viewed using STN Express query preparation.


=> search l22 sss sam
SAMPLE SEARCH INITIATED 08:32:23 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     2973 TO ITERATE

 67.3% PROCESSED     2000 ITERATIONS                            1 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:        56190 TO    62730
PROJECTED ANSWERS:               1 TO      102

L23            1 SEA SSS SAM L22

=> d scan

L23  1 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   Acetic acid, bis[[(hydroxyacetyl)oxy]-, 1,2-ethanediyl ester, polymer with
     butanedioyl dichloride (9CI)
MF   (C10 H14 O10 . C4 H4 Cl2 O2)x
CI   PMS

**RELATED POLYMERS AVAILABLE WITH POLYLINK**

     CM   1
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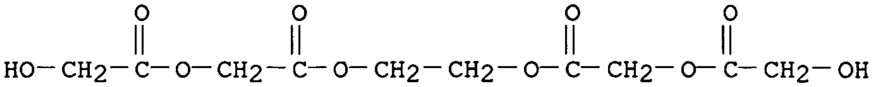

$$HO-CH_2-\overset{O}{\overset{\|}{C}}-O-CH_2-\overset{O}{\overset{\|}{C}}-O-CH_2-CH_2-O-\overset{O}{\overset{\|}{C}}-CH_2-O-\overset{O}{\overset{\|}{C}}-CH_2-OH$$

```
     CM   2
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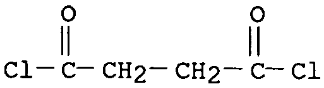

$$Cl-\overset{O}{\overset{\|}{C}}-CH_2-CH_2-\overset{O}{\overset{\|}{C}}-Cl$$

```
ALL ANSWERS HAVE BEEN SCANNED


=> file caplus
COST IN U.S. DOLLARS                             SINCE FILE     TOTAL
                                                      ENTRY   SESSION
FULL ESTIMATED COST                                    9.74     97.94

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)       SINCE FILE     TOTAL
                                                      ENTRY   SESSION
CA SUBSCRIBER PRICE                                    0.00     -6.75

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=> l23
L24          1 L23

=> d l24 ti fbib abs

L24  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Synthesis and polymerization of new sequentially ordered aliphatic ester
     diols
AN   1997:806803  CAPLUS
DN   128:61822
TI   Synthesis and polymerization of new sequentially ordered aliphatic ester
     diols
AU   Lee, Soo-Hong; Han, Yang-Kyoo; Kim, Eng Ryul; Im, Seung Soon
CS   Dep. Chem., Hanyang Univ., Seoul, 133-791, S. Korea
SO   Pollimo (1997), 21(6), 926-936
     CODEN: POLLDG; ISSN: 0379-153X
PB   Polymer Society of Korea
DT   Journal
LA   Korean
AB   Six kinds of new aliphatic ester diols were synthesized by the ring opening
     reaction of glycolide (or lactide) with aliphatic diols such as ethylene
     glycol (EG), 1,4-butanediol (BD) and 1,6-hexanediol (HD), as initiators,
     in the presence of stannous octoate catalyst.  The prepared aliphatic ester
     diols coexisted as two conformational isomers of linear and ring forms in
     a solvent.  The ratio of the concentration of ring form to linear form in the
     diol compds. increased in order of 0/100 (EG), 25/75 (BD), and 49/51 (HD)
     as the length of the methylene linkage of the diol used as initiator
     increased.  The diols were polymerized with conventional aliphatic dicarboxylic
     acids, such as succinic acid, adipic acid and suberic acid, or the
     corresponding acid chlorides to produce new sequentially ordered aliphatic
     polyesters.  The resulting polymers had inherent viscosities in the range
     of 0.1-0.4 dL/g in chloroform at 25°C.  According to the results of
     DSC, their glass transition temps. ranged from -35 to +10°C.  From
     TGA thermograms, the sequentially ordered aliphatic polyesters were observed to
     show relatively good thermal stability.  The temperature of 10% weight loss
was in
     the range of 270.apprx.345°C and all the polymers showed char
     yields of 5.apprx.10% at 550°C under a nitrogen atmospheric


=>  l24 it
MISSING OPERATOR L24 IT
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> d l24 it

L24  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2006 ACS on STN
IT   Polyesters, preparation
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (synthesis of sequentially ordered aliphatic ester diols from glycolide or
        lactide and polymerization with dicarboxylic acids or acid chlorides)
IT   100874-49-5P   200437-52-1P   200437-55-4P   200437-57-6P   200437-59-8P
     200437-61-2P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (monomer; synthesis of sequentially ordered aliphatic ester diols from
        glycolide or lactide and polymerization with dicarboxylic acids or acid
        chlorides)
IT   200437-63-4P 200437-65-6P   200437-67-8P   200437-69-0P
     200437-71-4P   200437-73-6P   200437-74-7P   200437-75-8P   200437-76-9P
     200437-78-1P   200437-80-5P   200437-82-7P   200437-84-9P   200437-86-1P
     200437-89-4P   200437-92-9P   200437-95-2P   200437-98-5P   200438-01-3P
     200438-03-5P   200438-06-8P   200438-09-1P   200438-12-6P   200438-15-9P
     200438-17-1P   200438-19-3P   200438-20-6P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (synthesis of sequentially ordered aliphatic ester diols from glycolide or
        lactide and polymerization with dicarboxylic acids or acid chlorides)


=> 200437-65-6
   REG1stRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.





L26          1 L25


=> display hitstr l26 1

L26  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2006 ACS on STN
IT   200437-65-6P
     RL: SPN (Synthetic preparation); PREP (Preparation)
```
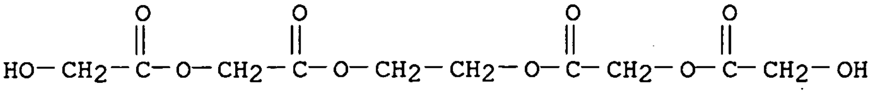
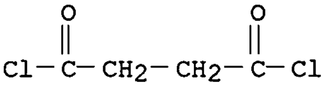

```
        (synthesis of sequentially ordered aliphatic ester diols from glycolide or
        lactide and polymerization with dicarboxylic acids or acid chlorides)
RN   200437-65-6  CAPLUS
CN   Acetic acid, bis[[(hydroxyacetyl)oxy]-, 1,2-ethanediyl ester, polymer with
     butanedioyl dichloride (9CI)  (CA INDEX NAME)

     CM   1

     CRN  200437-52-1
     CMF  C10 H14 O10
```



$$\mathrm{HO-CH_2-\overset{O}{\overset{\|}{C}}-O-CH_2-\overset{O}{\overset{\|}{C}}-O-CH_2-CH_2-O-\overset{O}{\overset{\|}{C}}-CH_2-O-\overset{O}{\overset{\|}{C}}-CH_2-OH}$$

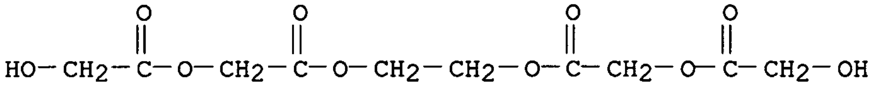
```
     CM   2

     CRN  543-20-4
     CMF  C4 H4 Cl2 O2
```



$$\mathrm{Cl-\overset{O}{\overset{\|}{C}}-CH_2-CH_2-\overset{O}{\overset{\|}{C}}-Cl}$$

```
=> file reg
COST IN U.S. DOLLARS                               SINCE FILE      TOTAL
                                                        ENTRY    SESSION
FULL ESTIMATED COST                                      4.78     107.61

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)         SINCE FILE      TOTAL
                                                        ENTRY    SESSION
CA SUBSCRIBER PRICE                                      0.00      -7.50

FILE 'REGISTRY' ENTERED AT 08:35:45 ON 07 JUN 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:     6 JUN 2006  HIGHEST RN 887000-62-6
DICTIONARY FILE UPDATES:    6 JUN 2006  HIGHEST RN 887000-62-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

*********************************************************************
*                                                                   *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,   *
* effective March 20, 2005.  A new display format, IDERL, is now    *
* available and contains the CA role and document type information. *
*                                                                    *
**********************************************************************

Structure search iteration limits have been increased.  See HELP SLIMITS
for details.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> d his

     (FILE 'HOME' ENTERED AT 07:18:24 ON 07 JUN 2006)

     FILE 'CAPLUS' ENTERED AT 07:19:13 ON 07 JUN 2006
L1              1 HYDROXYCAROXYLIC
L2           6876 HYDROXYCARBOXYLIC
L3           6876 L1 OR L2
L4         365504 GLYCOL
L5            374 L2(L)L4
L6         726230 OXYGEN
L7              3 L6(L)L5
L8            423 METHYL GLYCOLATE
L9         127844 ETHYLENE GLYCOL
L10            25 L8(L)L9
L11             2 L6(L)L10
L12             0 PLYGLYCOL?
L13          9698 POLYGLYCOL?
L14           211 GLYCOL TERMINATED
L15             0 L13(L)L14
L16         15455 GLYCOLIC
L17           477 L9(L)L16
L18        640481 COPOLYMER
L19            97 L17(L)L18

     FILE 'REGISTRY' ENTERED AT 08:21:41 ON 07 JUN 2006
                  E DIGLYCOLIC ACID/CN
L20             1 E3
L21               STRUCTURE UPLOADED
L22               STRUCTURE UPLOADED
L23             1 SEARCH L22 SSS SAM

     FILE 'CAPLUS' ENTERED AT 08:33:02 ON 07 JUN 2006
L24             1 L23
                  S 200437-65-6/REG#

     FILE 'REGISTRY' ENTERED AT 08:35:00 ON 07 JUN 2006
L25             1 S 200437-65-6/RN

     FILE 'CAPLUS' ENTERED AT 08:35:00 ON 07 JUN 2006
L26             1 S L25

     FILE 'REGISTRY' ENTERED AT 08:35:45 ON 07 JUN 2006

=> search l22 sss full
FULL SEARCH INITIATED 08:36:21 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    59503 TO ITERATE

100.0% PROCESSED    59503 ITERATIONS                             20 ANSWERS
```

```
SEARCH TIME: 00.00.02

L27          20 SEA SSS FUL L22

=> d scan

L27  20 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   Hexanedioic acid, polymer with 1,2-ethanediyl
     bis[[(hydroxyacetyl)oxy]acetate] (9CI)
MF   (C10 H14 O10 . C6 H10 O4)x
CI   PMS

**RELATED POLYMERS AVAILABLE WITH POLYLINK**

     CM   1
```

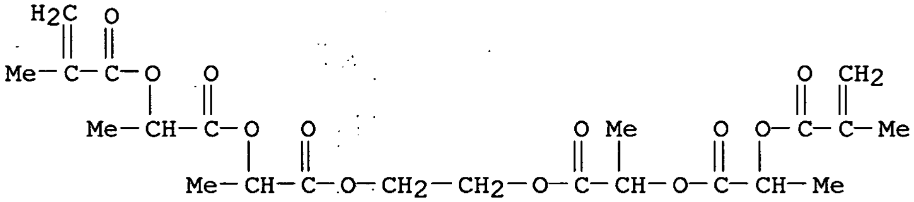


$HO-CH_2-C(=O)-O-CH_2-C(=O)-O-CH_2-CH_2-O-C(=O)-CH_2-O-C(=O)-CH_2-OH$

```
     CM   2
```

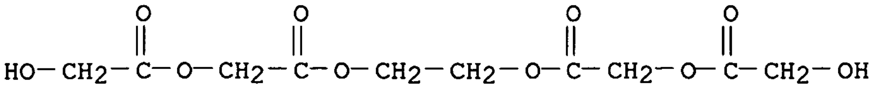
$HO_2C-(CH_2)_4-CO_2H$

```
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):20

L27  20 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   2-Propenoic acid, 2-methyl-, 1,4,11,14-tetramethyl-2,5,10,13-tetraoxo-
     3,6,9,12-tetraoxatetradecane-1,14-diyl ester (9CI)
MF   C22 H30 O12
CI   COM
```



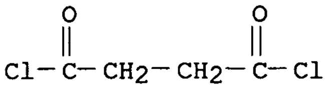
$Me-C(=CH_2)-C(=O)-O-CH(Me)-C(=O)-O-CH(Me)-C(=O)-O-CH_2-CH_2-O-C(=O)-CH(Me)-O-C(=O)-CH(Me)-O-C(=O)-C(=CH_2)-Me$

```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**


L27  20 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   Acetic acid, bis[[(hydroxyacetyl)oxy]-, 1,2-ethanediyl ester, polymer with
     butanedioyl dichloride (9CI)
MF   (C10 H14 O10 . C4 H4 Cl2 O2)x
CI   PMS

**RELATED POLYMERS AVAILABLE WITH POLYLINK**

     CM   1
```



$HO-CH_2-C(=O)-O-CH_2-C(=O)-O-CH_2-CH_2-O-C(=O)-CH_2-O-C(=O)-CH_2-OH$

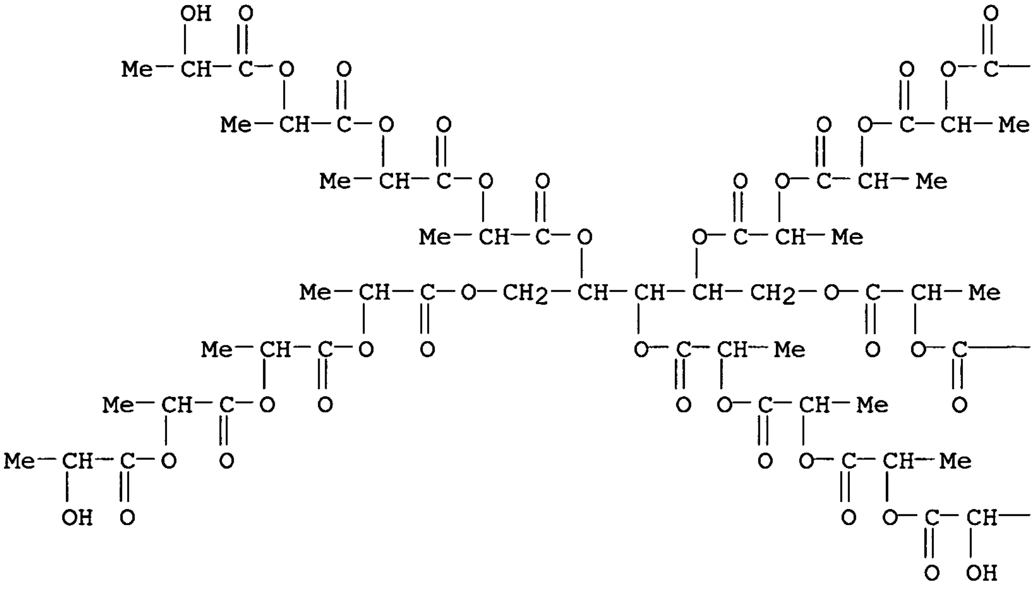
CM 2



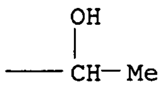
$Cl-C(=O)-CH_2-CH_2-C(=O)-Cl$

L27 20 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN Xylitol, pentakis[2-[2-[2-(2-hydroxy-1-oxopropoxy)-1-oxopropoxy]-1-oxopropoxy]propanoate] (9CI)
MF C65 H92 O45

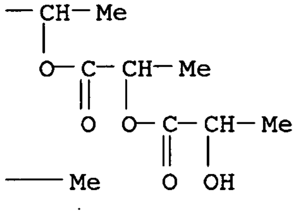
PAGE 1-A



PAGE 1-B

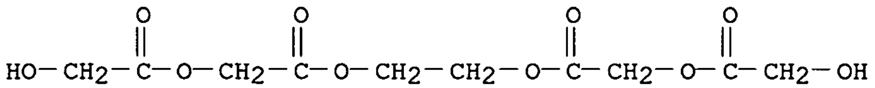


$$\mathrm{—\overset{\overset{OH}{|}}{CH}-Me}$$



**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

```
L27  20 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   Acetic acid, [(hydroxyacetyl)oxy]-, 1,2-ethanediyl ester (9CI)
MF   C10 H14 O10
CI   COM
```



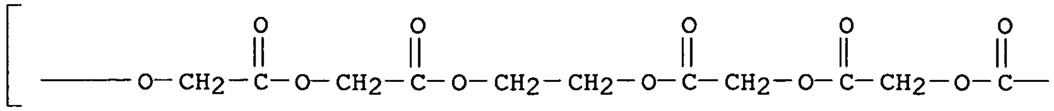
$$\mathrm{HO-CH_2-\overset{\overset{O}{\|}}{C}-O-CH_2-\overset{\overset{O}{\|}}{C}-O-CH_2-CH_2-O-\overset{\overset{O}{\|}}{C}-CH_2-O-\overset{\overset{O}{\|}}{C}-CH_2-OH}$$

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

```
L27  20 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   Poly[oxy(2-oxo-1,2-ethanediyl)oxy(2-oxo-1,2-ethanediyl)oxy-1,2-
     ethanediyloxy(1-oxo-1,2-ethanediyl)oxy(1-oxo-1,2-ethanediyl)oxy(1,8-dioxo-
     1,8-octanediyl)] (9CI)
MF   (C18 H24 O12)n
CI   PMS
```

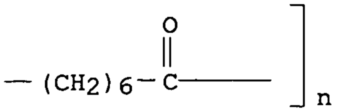
**RELATED POLYMERS AVAILABLE WITH POLYLINK**

PAGE 1-A



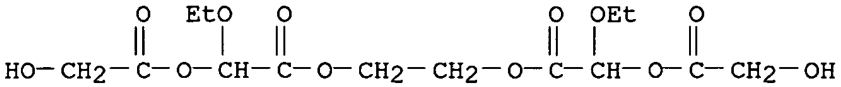
$$\mathrm{\Big[\;—O-CH_2-\overset{\overset{O}{\|}}{C}-O-CH_2-\overset{\overset{O}{\|}}{C}-O-CH_2-CH_2-O-\overset{\overset{O}{\|}}{C}-CH_2-O-\overset{\overset{O}{\|}}{C}-CH_2-O-\overset{\overset{O}{\|}}{C}—}$$

PAGE 1-B



$$-(CH_2)_6-\overset{\overset{\displaystyle O}{\|}}{C}-\Big]_n$$

```
L27  20 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   Acetic acid, ethoxy[(hydroxyacetyl)oxy]-, 1,2-ethanediyl ester (9CI)
MF   C14 H22 O12
CI   COM
```



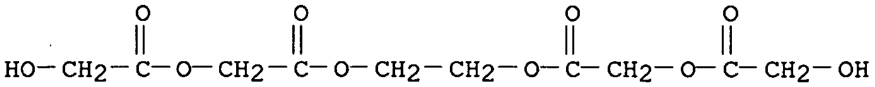
$$HO-CH_2-\overset{\overset{\displaystyle O}{\|}}{C}-O-\overset{\overset{\displaystyle EtO}{|}}{CH}-\overset{\overset{\displaystyle O}{\|}}{C}-O-CH_2-CH_2-O-\overset{\overset{\displaystyle O}{\|}}{C}-\overset{\overset{\displaystyle OEt}{|}}{CH}-O-\overset{\overset{\displaystyle O}{\|}}{C}-CH_2-OH$$

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

```
L27  20 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   Octanedioic acid, polymer with 1,2-ethanediyl
     bis[[(hydroxyacetyl)oxy]acetate] (9CI)
MF   (C10 H14 O10 . C8 H14 O4)x
CI   PMS
```

**RELATED POLYMERS AVAILABLE WITH POLYLINK**

CM 1

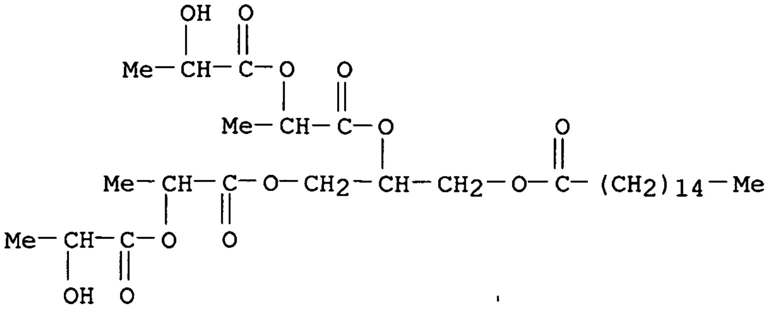


$$HO-CH_2-\overset{\overset{\displaystyle O}{\|}}{C}-O-CH_2-\overset{\overset{\displaystyle O}{\|}}{C}-O-CH_2-CH_2-O-\overset{\overset{\displaystyle O}{\|}}{C}-CH_2-O-\overset{\overset{\displaystyle O}{\|}}{C}-CH_2-OH$$

CM 2

$HO_2C-(CH_2)_6-CO_2H$

```
L27  20 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   Palmitin, 1-mono-, tetralactate (6CI)
MF   C31 H54 O12
```

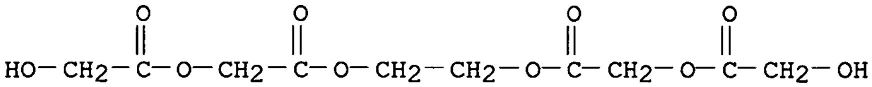


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

L27 20 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN Acetic acid, bis[[(hydroxyacetyl)oxy]-, 1,2-ethanediyl ester, polymer with hexanedioyl dichloride (9CI)
MF (C10 H14 O10 . C6 H8 Cl2 O2)x
CI PMS

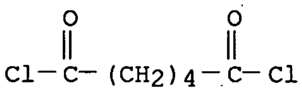
**RELATED POLYMERS AVAILABLE WITH POLYLINK**

CM 1



$$HO-CH_2-\overset{O}{\overset{\|}{C}}-O-CH_2-\overset{O}{\overset{\|}{C}}-O-CH_2-CH_2-O-\overset{O}{\overset{\|}{C}}-CH_2-O-\overset{O}{\overset{\|}{C}}-CH_2-OH$$

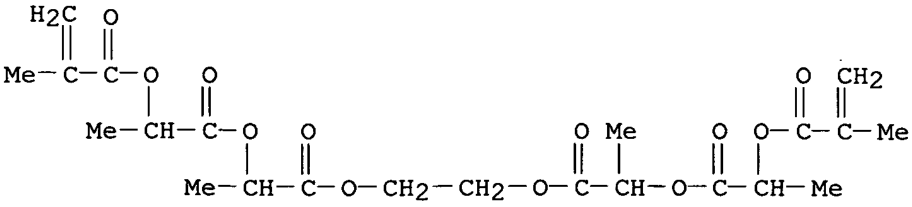
CM 2



$$Cl-\overset{O}{\overset{\|}{C}}-(CH_2)_4-\overset{O}{\overset{\|}{C}}-Cl$$

L27 20 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN 2-Propenoic acid, 2-methyl-, 1,4,11,14-tetramethyl-2,5,10,13-tetraoxo-3,6,9,12-tetraoxatetradecane-1,14-diyl ester, homopolymer (9CI)
MF (C22 H30 O12)x
CI PMS

CM 1



L27 20 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

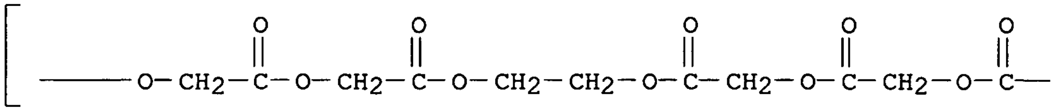
IN Poly[oxy(2-oxo-1,2-ethanediyl)oxy(2-oxo-1,2-ethanediyl)oxy-1,2-ethanediyloxy(1-oxo-1,2-ethanediyl)oxy(1-oxo-1,2-ethanediyl)oxy(1,4-dioxo-1,4-butanediyl)] (9CI)

MF $(C14\ H16\ O12)n$

CI PMS

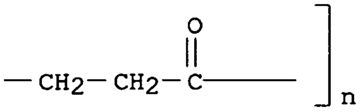
**RELATED POLYMERS AVAILABLE WITH POLYLINK**

PAGE 1-A



$\Big[ -O-CH_2-\overset{O}{\overset{\|}{C}}-O-CH_2-\overset{O}{\overset{\|}{C}}-O-CH_2-CH_2-O-\overset{O}{\overset{\|}{C}}-CH_2-O-\overset{O}{\overset{\|}{C}}-CH_2-O-\overset{O}{\overset{\|}{C}}-$

PAGE 1-B



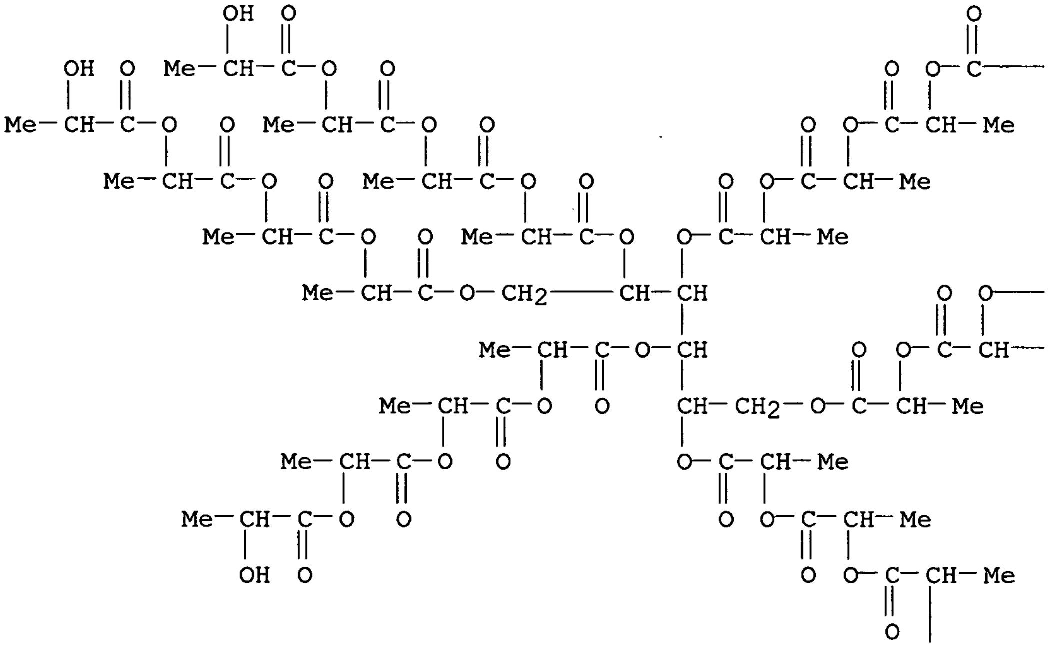
$-CH_2-CH_2-\overset{O}{\overset{\|}{C}}- \Big]_n$

L27 20 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

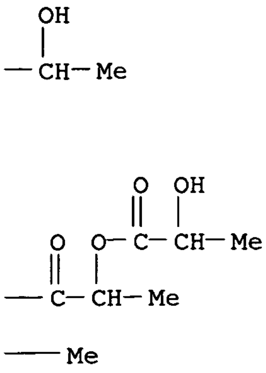
IN Glucitol, hexakis[2-[2-[2-(2-hydroxy-1-oxopropoxy)-1-oxopropoxy]-1-oxopropoxy]propanoate] (9CI)

MF $C78\ H110\ O54$

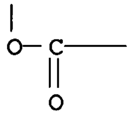
PAGE 1-A



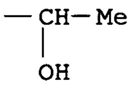
PAGE 1-B



PAGE 2-A



PAGE 2-B

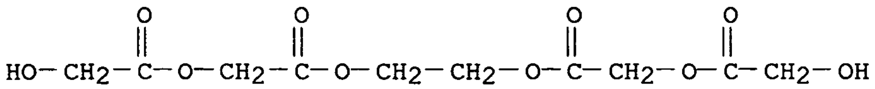


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

```
L27  20 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   Butanedioic acid, polymer with 1,2-ethanediyl
     bis[[(hydroxyacetyl)oxy]acetate] (9CI)
MF   (C10 H14 O10 . C4 H6 O4)x
CI   PMS
```

**RELATED POLYMERS AVAILABLE WITH POLYLINK**

CM 1



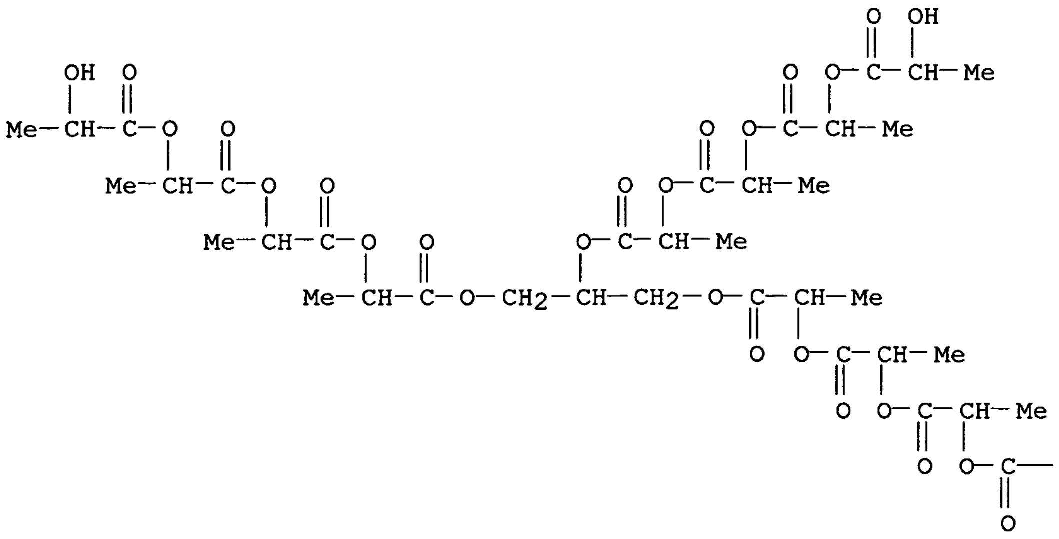
$\mathrm{HO-CH_2-\overset{O}{\overset{\|}{C}}-O-CH_2-\overset{O}{\overset{\|}{C}}-O-CH_2-CH_2-O-\overset{O}{\overset{\|}{C}}-CH_2-O-\overset{O}{\overset{\|}{C}}-CH_2-OH}$

CM 2

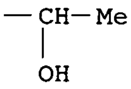
$\mathrm{HO_2C-CH_2-CH_2-CO_2H}$

L27 20 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN Propanoic acid, 2-[2-[2-(2-hydroxy-1-oxopropoxy)-1-oxopropoxy]-1-oxopropoxy]-, 1,2,3-propanetriyl ester (9CI)
MF C39 H56 O27

PAGE 1-A



PAGE 1-B

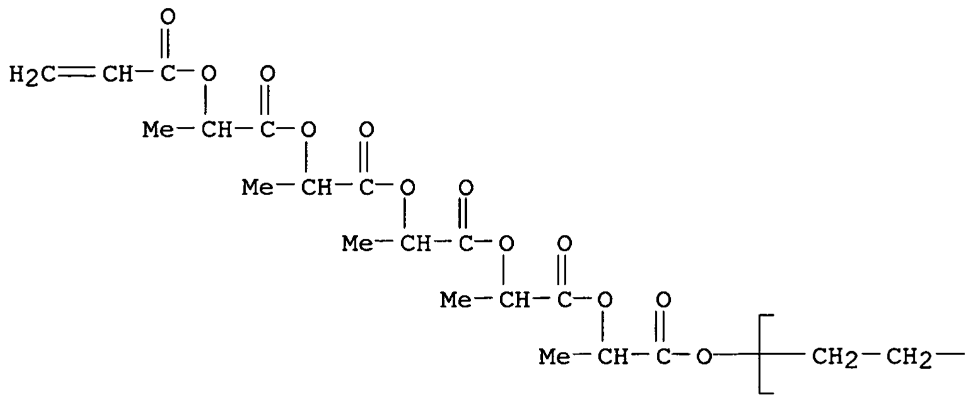


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

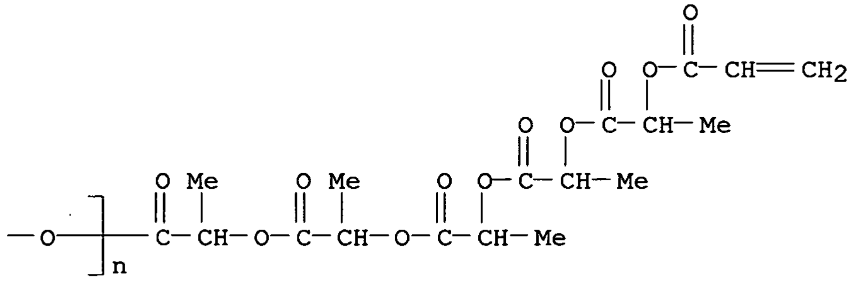
L27 20 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN Poly(oxy-1,2-ethanediyl), α-(2,5,8,11,14-pentamethyl-1,4,7,10,13,16-hexaoxo-3,6,9,12,15-pentaoxaoctadec-17-en-1-yl)-ω-[(2,5,8,11,14-pentamethyl-1,4,7,10,13,16-hexaoxo-3,6,9,12,15-pentaoxaoctadec-17-en-1-yl)oxy]- (9CI)
MF (C2 H4 O)n C36 H46 O23

CI PMS

PAGE 1-A



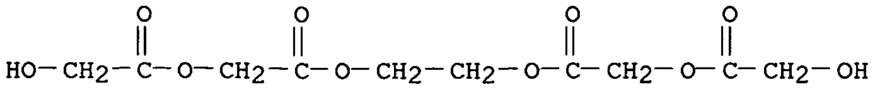
PAGE 1-B



L27 20 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN Acetic acid, [(hydroxyacetyl)oxy]-, 1,2-ethanediyl ester, polymer with octanedioyl dichloride (9CI)
MF $(C_{10}H_{14}O_{10} . C_8H_{12}Cl_2O_2)_x$
CI PMS

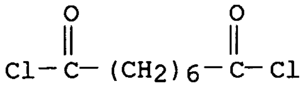
**RELATED POLYMERS AVAILABLE WITH POLYLINK**

CM 1



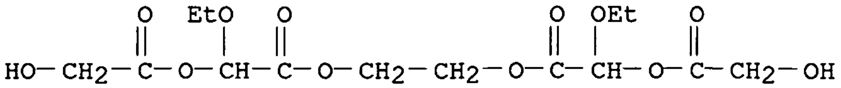
$HO-CH_2-C(=O)-O-CH_2-C(=O)-O-CH_2-CH_2-O-C(=O)-CH_2-O-C(=O)-CH_2-OH$

CM 2



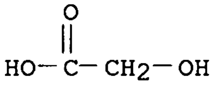
$Cl-\overset{O}{\overset{\|}{C}}-(CH_2)_6-\overset{O}{\overset{\|}{C}}-Cl$

```
L27  20 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   Cellulose, 4,11-diethoxy-2,5,10,13-tetraoxo-3,6,9,12-tetraoxatetradecane-
     1,14-diyl ether, 2,2-dichloropropanoate, carboxymethyl ether, sodium salt
     (9CI)
MF   C14 H22 O12 . x C3 H4 Cl2 O2 . x C2 H4 O3 . x Na . 2 Unspecified

     CM   1
```



$HO-CH_2-\overset{O}{\overset{\|}{C}}-O-\overset{EtO}{\overset{|}{CH}}-\overset{O}{\overset{\|}{C}}-O-CH_2-CH_2-O-\overset{O}{\overset{\|}{C}}-\overset{OEt}{\overset{|}{CH}}-O-\overset{O}{\overset{\|}{C}}-CH_2-OH$

```
     CM   2

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

     CM   3
```



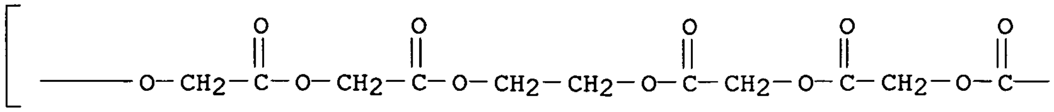
$HO-\overset{O}{\overset{\|}{C}}-CH_2-OH$

```
     CM   4
```

$Me-CCl_2-CO_2H$

```
L27  20 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   Poly[oxy(2-oxo-1,2-ethanediyl)oxy(2-oxo-1,2-ethanediyl)oxy-1,2-
     ethanediyloxy(1-oxo-1,2-ethanediyl)oxy(1-oxo-1,2-ethanediyl)oxy(1,6-dioxo-
     1,6-hexanediyl)] (9CI)
MF   (C16 H20 O12)n
CI   PMS

**RELATED POLYMERS AVAILABLE WITH POLYLINK**
```

PAGE 1-A



$\left[\;-O-CH_2-\overset{O}{\overset{\|}{C}}-O-CH_2-\overset{O}{\overset{\|}{C}}-O-CH_2-CH_2-O-\overset{O}{\overset{\|}{C}}-CH_2-O-\overset{O}{\overset{\|}{C}}-CH_2-O-\overset{O}{\overset{\|}{C}}-\right.$

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                                                          PAGE 1-B
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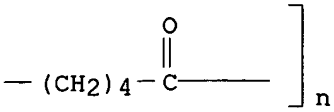
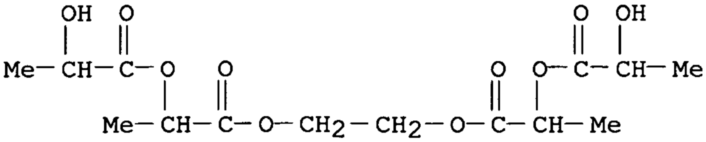


```
L27  20 ANSWERS   REGISTRY  COPYRIGHT 2006 ACS on STN
IN   Propanoic acid, 2-(2-hydroxy-1-oxopropoxy)-, 1,2-ethanediyl ester (9CI)
MF   C14 H22 O10
```



```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**


ALL ANSWERS HAVE BEEN SCANNED


=> e Propanoic acid, 2-(2-hydroxy-1-oxopropoxy)-, 1,2-ethanediyl ester/cn
E1            1      PROPANOIC ACID, 2-(2-HYDROXY-1-(HYDROXYMETHYL)ETHOXY)-, HOMO
                     POLYMER/CN
E2            1      PROPANOIC ACID, 2-(2-HYDROXY-1-METHYLETHOXY)-/CN
E3            1 -->  PROPANOIC ACID, 2-(2-HYDROXY-1-OXOPROPOXY)-, 1,2-ETHANEDIYL
                     ESTER/CN
E4            1      PROPANOIC ACID, 2-(2-HYDROXY-1-OXOPROPOXY)-, 1,4-BUTANEDIYL
                     ESTER/CN
E5            1      PROPANOIC ACID, 2-(2-HYDROXY-1-OXOPROPOXY)-, 1,6-HEXANEDIYL
                     ESTER/CN
E6            1      PROPANOIC ACID, 2-(2-HYDROXY-1-OXOPROPOXY)-, 1-CARBOXYETHYL
                     ESTER/CN
E7            1      PROPANOIC ACID, 2-(2-HYDROXY-1-OXOPROPOXY)-, 1-CARBOXYETHYL
                     ESTER, (2S-(1(R*),2R*(R*)))-/CN
E8            1      PROPANOIC ACID, 2-(2-HYDROXY-1-OXOPROPOXY)-, 1-CARBOXYETHYL
                     ESTER, CALCIUM SALT (2:1)/CN
E9            1      PROPANOIC ACID, 2-(2-HYDROXY-1-OXOPROPOXY)-, 2-(1-CARBOXYETH
                     OXY)-1-METHYL-2-OXOETHYL ESTER, (2S-(1(R*(R*)),2R*(R*)))-/CN
E10           1      PROPANOIC ACID, 2-(2-HYDROXY-1-OXOPROPOXY)-, 2-(1-CARBOXYETH
                     OXY)-1-METHYL-2-OXOETHYL ESTER, CALCIUM SALT (2:1)/CN
E11           1      PROPANOIC ACID, 2-(2-HYDROXY-1-OXOPROPOXY)-, 2-(2-(2-(4-BROM
                     OPHENYL)-2-OXOETHOXY)-1-METHYL-2-OXOETHOXY)-1-METHYL-2-OXOET
                     HYL ESTER, (2S-(1(R*(R*)),2R*(R*)))-/CN
E12           1      PROPANOIC ACID, 2-(2-HYDROXY-1-OXOPROPOXY)-, 2-(2-ETHOXY-1-M
                     ETHYL-2-OXOETHOXY)-1-METHYL-2-OXOETHYL ESTER/CN

=> e3
L28           1 "PROPANOIC ACID, 2-(2-HYDROXY-1-OXOPROPOXY)-, 1,2-ETHANEDIYL
                ESTER"/CN

=> d l28

L28  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   100874-49-5  REGISTRY
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ED   Entered STN:  15 Mar 1986
CN   Propanoic acid, 2-(2-hydroxy-1-oxopropoxy)-, 1,2-ethanediyl ester
     (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Lactic acid, ethylene ester, dilactate (6CI)
FS   3D CONCORD
MF   C14 H22 O10
SR   CAOLD
LC   STN Files:   CA, CAOLD, CAPLUS, TOXCENTER
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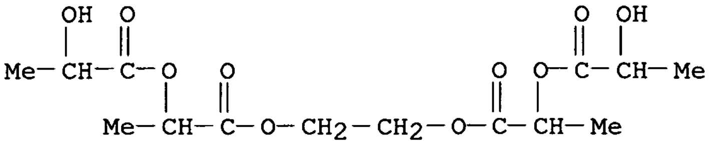

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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

               2 REFERENCES IN FILE CA (1907 TO DATE)
               2 REFERENCES IN FILE CAPLUS (1907 TO DATE)
               1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)


=> file caplus
COST IN U.S. DOLLARS                              SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   174.48     282.09

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)        SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00      -7.50

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FILE LAST UPDATED: 6 Jun 2006  (20060606/ED)

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=> l28
L29            2 L28

=> d l29 1-2 ti fbib abs
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```
L29  ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   The tissue response to an alkylene bis(dilactoyl)-methacrylate bone
     adhesive
AN   2004:850675  CAPLUS
DN   142:285059
TI   The tissue response to an alkylene bis(dilactoyl)-methacrylate bone
     adhesive
AU   Heiss, Christian; Hahn, Niels; Wenisch, Sabine; Alt, Volker; Pokinskyj,
     Peter; Horas, Uwe; Kilian, Olaf; Schnettler, Reinhard
CS   Department of Trauma Surgery, Justus-Liebig-University of Giessen,
     Giessen, D-35385, Germany
SO   Biomaterials (2004), Volume Date 2005, 26(12), 1389-1396
     CODEN: BIMADU; ISSN: 0142-9612
PB   Elsevier Ltd.
DT   Journal
LA   English
AB   Gluing is an attractive technique to fix small bone fragments.  However,
     to date no bone adhesive could be established successfully for all day
     clin. use.  The purpose of this exptl. study was to investigate the
     biocompatibility of a new bone glue based on alkylene bis(dilactoyl)-
     methacrylate in 36 rabbits.  Monocondylar osteotomy of the distal femur
     was performed and bone glue was applied into the osteotomy gap in 24
     rabbits.  The remaining 12 animals served as controls.  In all rabbits the
     osteotomy was subsequently stabilized by K-wire osteosynthesis.  Six
     animals of the glue group and 3 controls were euthanized after 7, 21, 42,
     and 84 days, resp.  Fracture healing and degradation pattern of the glue was
     studied using histol., histomorphometrical, scanning electron
     microscopical, and radiol. methods.  Good resorption of the glue by
     mononuclear and multinucleated giant cells without prolonged inflammatory
     processes was observed in the glue group.  Histomorphometrical anal. did not
     reveal any significant differences in fracture healing between the glue
     and control group at any time.  Complete remodelling of the former
     osteotomy gap was found in all rabbits after 84 days.  This bioresorbable
     bone adhesive exhibited good biocompatibility and its degradation did not
     interfere with physiol. fracture healing.
RE.CNT  28    THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29  ANSWER 2 OF 2  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Synthesis and polymerization of new sequentially ordered aliphatic ester
     diols
AN   1997:806803  CAPLUS
DN   128:61822
TI   Synthesis and polymerization of new sequentially ordered aliphatic ester
     diols
AU   Lee, Soo-Hong; Han, Yang-Kyoo; Kim, Eng Ryul; Im, Seung Soon
CS   Dep. Chem., Hanyang Univ., Seoul, 133-791, S. Korea
SO   Pollimo (1997), 21(6), 926-936
     CODEN: POLLDG; ISSN: 0379-153X
PB   Polymer Society of Korea
DT   Journal
LA   Korean
AB   Six kinds of new aliphatic ester diols were synthesized by the ring opening
     reaction of glycolide (or lactide) with aliphatic diols such as ethylene
     glycol (EG), 1,4-butanediol (BD) and 1,6-hexanediol (HD), as initiators,
     in the presence of stannous octoate catalyst.  The prepared aliphatic ester
     diols coexisted as two conformational isomers of linear and ring forms in
     a solvent.  The ratio of the concentration of ring form to linear form in the
     diol compds. increased in order of 0/100 (EG), 25/75 (BD), and 49/51 (HD)
     as the length of the methylene linkage of the diol used as initiator
     increased.  The diols were polymerized with conventional aliphatic dicarboxylic
     acids, such as succinic acid, adipic acid and suberic acid, or the
     corresponding acid chlorides to produce new sequentially ordered aliphatic
     polyesters.  The resulting polymers had inherent viscosities in the range
     of 0.1-0.4 dL/g in chloroform at 25°C.  According to the results of
     DSC, their glass transition temps. ranged from -35 to +10°C.  From
     TGA thermograms, the sequentially ordered aliphatic polyesters were observed to
     show relatively good thermal stability.  The temperature of 10% weight loss
was in
     the range of 270.apprx.345°C and all the polymers showed char
     yields of 5.apprx.10% at 550°C under a nitrogen atmospheric


=> logoff hold
COST IN U.S. DOLLARS                                 SINCE FILE      TOTAL
                                                          ENTRY    SESSION
FULL ESTIMATED COST                                        6.40     288.49

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)           SINCE FILE      TOTAL
                                                          ENTRY    SESSION
CA SUBSCRIBER PRICE                                       -1.50      -9.00

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Connecting via Winsock to STN




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LOGINID:SSSPTA1623PAZ

PASSWORD:
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 08:39:23 ON 07 JUN 2006
FILE 'CAPLUS' ENTERED AT 08:39:23 ON 07 JUN 2006
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COST IN U.S. DOLLARS                                 SINCE FILE      TOTAL
                                                          ENTRY    SESSION
FULL ESTIMATED COST                                        6.40     288.49

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)           SINCE FILE      TOTAL
                                                          ENTRY    SESSION
CA SUBSCRIBER PRICE                                       -1.50      -9.00

=> d his

     (FILE 'HOME' ENTERED AT 07:18:24 ON 07 JUN 2006)

     FILE 'CAPLUS' ENTERED AT 07:19:13 ON 07 JUN 2006
L1              1 HYDROXYCAROXYLIC
L2           6876 HYDROXYCARBOXYLIC
L3           6876 L1 OR L2
L4         365504 GLYCOL
L5            374 L2(L)L4
L6         726230 OXYGEN
L7              3 L6(L)L5
L8            423 METHYL GLYCOLATE
L9         127844 ETHYLENE GLYCOL
L10            25 L8(L)L9
L11             2 L6(L)L10
L12             0 PLYGLYCOL?
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L13         9698 POLYGLYCOL?
L14          211 GLYCOL TERMINATED
L15            0 L13(L)L14
L16        15455 GLYCOLIC
L17          477 L9(L)L16
L18       640481 COPOLYMER
L19           97 L17(L)L18

     FILE 'REGISTRY' ENTERED AT 08:21:41 ON 07 JUN 2006
                 E DIGLYCOLIC ACID/CN
L20            1 E3
L21              STRUCTURE UPLOADED
L22              STRUCTURE UPLOADED
L23            1 SEARCH L22 SSS SAM

     FILE 'CAPLUS' ENTERED AT 08:33:02 ON 07 JUN 2006
L24            1 L23
                 S 200437-65-6/REG#

     FILE 'REGISTRY' ENTERED AT 08:35:00 ON 07 JUN 2006
L25            1 S 200437-65-6/RN

     FILE 'CAPLUS' ENTERED AT 08:35:00 ON 07 JUN 2006
L26            1 S L25

     FILE 'REGISTRY' ENTERED AT 08:35:45 ON 07 JUN 2006
L27           20 SEARCH L22 SSS FULL
                 E PROPANOIC ACID, 2-(2-HYDROXY-1-OXOPROPOXY)-, 1,2-ETHANEDIYL E
L28            1 E3

     FILE 'CAPLUS' ENTERED AT 08:37:28 ON 07 JUN 2006
L29            2 L28

=> l27
L30           5 L27

=> d l30 1-5 ti fbib abs

L30  ANSWER 1 OF 5  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Biocompatibility and functionality of the degradable polymer alkylene
     bis(dilactoyl)-methacrylate for screw augmentation in vivo
AN   2005:1083225  CAPLUS
DN   144:280384
TI   Biocompatibility and functionality of the degradable polymer alkylene
     bis(dilactoyl)-methacrylate for screw augmentation in vivo
AU   Ignatius, Anita A.; Augat, Peter; Hollstein, Elke; Schorlemmer, Sandra;
     Peraus, Manfred; Pokinskyj, Peter; Claes, Lutz
CS   Institute of Orthopaedic Research and Biomechanics, University of Ulm,
     Ulm, 89081, Germany
SO   Journal of Biomedical Materials Research, Part B: Applied Biomaterials
     (2005), 75B(1), 128-136
     CODEN: JBMRGL; ISSN: 1552-4973
PB   John Wiley & Sons, Inc.
DT   Journal
LA   English
AB   Recently, a new degradable polymer was developed on the basis of alkylene
     bis(dilactoyl)-methacrylate as an alternative material for screw
     augmentation.  The polymer was investigated in vitro and in a short-term
     experiment in rabbits exhibiting promising results.  The aim of the present
     study was to investigate its long-term biocompatibility and mech.
     functionality in a large animal model.  The polymer was used for screw
     augmentation in the cancellous bone of the femoral condyle and tibia
     epiphysis of 12 sheep and was compared to polymethylmethacrylate (PMMA)
     augmented and nonaugmented screws.  After an implantation period of 6 mo,
     bone, regional lymph nodes, and several organs were histol. evaluated.
     The mech. efficacy was investigated by a biomech. pullout test.  A lot of
     mononuclear macrophages and multinuclear foreign body giant cells with
     incorporated polymer particles indicate strong inflammatory reactions.
     Large osteolysis zones with osteoclasts were found in the surrounding
     polymer.  The polymer was fragmented but not substantially degraded.
     Polymer particles were also found in the regional lymph nodes.  Lung,
     liver, kidney, and spleen did not show any pathol. signs.  The pullout
     force of screws augmented with the new polymer was significantly reduced
     in comparison to PMMA augmented and nonaugmented screws, resp.  It was
     concluded that the material has poor biocompatibility and cannot be
     recommended for clin. application as screw augmentation material.
RE.CNT  35     THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
               ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30  ANSWER 2 OF 5  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   The tissue response to an alkylene bis(dilactoyl)-methacrylate bone
     adhesive
AN   2004:850675  CAPLUS
DN   142:285059
TI   The tissue response to an alkylene bis(dilactoyl)-methacrylate bone
     adhesive
AU   Heiss, Christian; Hahn, Niels; Wenisch, Sabine; Alt, Volker; Pokinskyj,
     Peter; Horas, Uwe; Kilian, Olaf; Schnettler, Reinhard
CS   Department of Trauma Surgery, Justus-Liebig-University of Giessen,
     Giessen, D-35385, Germany
SO   Biomaterials (2004), Volume Date 2005, 26(12), 1389-1396
     CODEN: BIMADU; ISSN: 0142-9612
PB   Elsevier Ltd.
DT   Journal
LA   English
AB   Gluing is an attractive technique to fix small bone fragments.  However,
     to date no bone adhesive could be established successfully for all day
     clin. use.  The purpose of this exptl. study was to investigate the
     biocompatibility of a new bone glue based on alkylene bis(dilactoyl)-
     methacrylate in 36 rabbits.  Monocondylar osteotomy of the distal femur
     was performed and bone glue was applied into the osteotomy gap in 24
     rabbits.  The remaining 12 animals served as controls.  In all rabbits the
     osteotomy was subsequently stabilized by K-wire osteosynthesis.  Six
     animals of the glue group and 3 controls were euthanized after 7, 21, 42,
     and 84 days, resp.  Fracture healing and degradation pattern of the glue was
     studied using histol., histomorphometrical, scanning electron
     microscopical, and radiol. methods.  Good resorption of the glue by
     mononuclear and multinucleated giant cells without prolonged inflammatory
     processes was observed in the glue group.  Histomorphometrical anal. did not
     reveal any significant differences in fracture healing between the glue
     and control group at any time.  Complete remodelling of the former
     osteotomy gap was found in all rabbits after 84 days.  This bioresorbable
     bone adhesive exhibited good biocompatibility and its degradation did not
     interfere with physiol. fracture healing.
RE.CNT  28     THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
               ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30  ANSWER 3 OF 5  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Synthesis and polymerization of new sequentially ordered aliphatic ester
     diols
AN   1997:806803  CAPLUS
DN   128:61822
TI   Synthesis and polymerization of new sequentially ordered aliphatic ester
     diols
AU   Lee, Soo-Hong; Han, Yang-Kyoo; Kim, Eng Ryul; Im, Seung Soon
CS   Dep. Chem., Hanyang Univ., Seoul, 133-791, S. Korea
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SO   Pollimo (1997), 21(6), 926-936
     CODEN: POLLDG; ISSN: 0379-153X
PB   Polymer Society of Korea
DT   Journal
LA   Korean
AB   Six kinds of new aliphatic ester diols were synthesized by the ring opening
     reaction of glycolide (or lactide) with aliphatic diols such as ethylene
     glycol (EG), 1,4-butanediol (BD) and 1,6-hexanediol (HD), as initiators,
     in the presence of stannous octoate catalyst.  The prepared aliphatic ester
     diols coexisted as two conformational isomers of linear and ring forms in
     a solvent.  The ratio of the concentration of ring form to linear form in the
     diol compds. increased in order of 0/100 (EG), 25/75 (BD), and 49/51 (HD)
     as the length of the methylene linkage of the diol used as initiator
     increased.  The diols were polymerized with conventional aliphatic dicarboxylic
     acids, such as succinic acid, adipic acid and suberic acid, or the
     corresponding acid chlorides to produce new sequentially ordered aliphatic
     polyesters.  The resulting polymers had inherent viscosities in the range
     of 0.1-0.4 dL/g in chloroform at 25°C.  According to the results of
     DSC, their glass transition temps. ranged from -35 to +10°C.  From
     TGA thermograms, the sequentially ordered aliphatic polyesters were observed to
     show relatively good thermal stability.  The temperature of 10% weight loss
was in
     the range of 270.apprx.345°C and all the polymers showed char
     yields of 5.apprx.10% at 550°C under a nitrogen atmospheric

L30  ANSWER 4 OF 5  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Targeted delivery via biodegradable polymers
AN   1996:401728  CAPLUS
DN   125:67764
TI   Targeted delivery via biodegradable polymers
IN   Roth, Laurence A.; Herman, Stephen Jack
PA   Focal, Inc., USA
SO   PCT Int. Appl., 40 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE       APPLICATION NO.         DATE
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PI   WO 9611671           A1    19960425   WO 1995-US14103         19951011
         W:  AU, CA, JP
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                                           US 1994-322092       A  19941012
     CA 2202511           AA    19960425   CA 1995-2202511         19951011
                                           US 1994-322092       A  19941012
     AU 9539720           A1    19960506   AU 1995-39720           19951011
     AU 700903            B2    19990114
                                           US 1994-322092       A  19941012
                                           WO 1995-US14103      W  19951011
     EP 785774            A1    19970730   EP 1995-937688          19951011
     EP 785774            B1    20010131
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
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                                           WO 1995-US14103      W  19951011
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     EP 1004293           A3    20011004
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                                           EP 1995-937688       A3 19951011
     AT 198979            E     20010215   AT 1995-937688          19951011
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     US 5879713            A     19990309   US 1997-787647         19970123
                                            US 1994-322092      B1 19941012
     US 6911216            B1    20050628   US 1998-195340         19981118
                                            US 1994-322092      B1 19941012
                                            US 1997-787647      A3 19970123
     AU 9923614            A1    19990527   AU 1999-23614          19990401
     AU 726472             B2    20001109
                                            AU 1995-39720       A3 19951011
AB   Delivery of bioactive mols. such as nucleic acid mols. encoding a protein
     can be enhanced by immobilization of the bioactive mol. in a polymeric
     material adjacent to the cells where delivery is desired, where the
     bioactive mol. is encapsulated in a vehicle such as liposomes which
     facilitates transfer of the bioactive mols. into the targeted tissue.
     Targeting of the bioactive mols. can also be achieved by selection of an
     encapsulating medium of an appropriate size whereby the medium serves to
     deliver the mols. to a particular target.  For example, encapsulation of
     nucleic acid mols. or biol. active proteins within biodegradable,
     biocompatible polymeric microparticles which are appropriately sized to
     infiltrate, but remain trapped within, the capillary beds and alveoli of
     the lungs can be used for targeted delivery to these regions following
     administration to a patient by infusion or injection.  Thus, expression
     vector pRSVLUC, containing firefly luciferase cDNA, was dissolved in a 10%
     solution of gelling prepolymer having a PEG core with .apprx.5 lactate
     residues at each end, capped by acrylate groups.  This solution, which also
     contained eosin Y as photoinitiator, was incorporated into pos. charged
     liposomes containing the cationic lipid analog, 1,2-dioleoyloxy-3-
     (trimethylammonium)propane.  The liposomes were introduced into the rat
     carotid artery in vivo and gelated by illumination with green light.
     After 3 days, gene expression was detected in the artery.

L30  ANSWER 5 OF 5  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Synthesis of bioactive 2,2-dichloropropionic acid esters of carboxymethyl
     cellulose and investigations on their release behavior
AN   1990:204548  CAPLUS
DN   112:204548
TI   Synthesis of bioactive 2,2-dichloropropionic acid esters of carboxymethyl
     cellulose and investigations on their release behavior
AU   Schnabelrauch, Matthias; Geschwend, Guenter; Klemm, Dieter
CS   Sekt. Chem., Friedrich-Schiller-Univ. Jena, Jena, DDR-6900, Ger. Dem. Rep.
SO   Journal of Applied Polymer Science (1990), 39(3), 621-8
     CODEN: JAPNAB; ISSN: 0021-8995
DT   Journal
LA   English
AB   Polymer bound bioactive agents are prepared by linking 2,2-dichloropropionic
     acid to the OH groups of CM-cellulose (CMC) and enzymically cleavable CMC
     networks, and to the CO2 groups of CMC via enzymically cleavable spacer
     units using a simple as well as effective CMC activation procedure.  The
     hydrolytic release of the bioactive agent is mainly dependent on the
     hydrophilicity of the CMC esters.  In the case of polymers containing
     enzymically cleavable structural units the release can be accelerated by
     addition of esterases.


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